

IMPROVED AUDIO SYSTEM WITH ACOUSTIC SHOCK CONTROL
ABSTRACT OF DISCLOSURE

5 A cellular telephone (100, 1300) comprises an earpiece speaker (234, 1312)
and a loudspeaker (238, 1316) that share a common resonator (e.g., 1436). Sharing a
common resonator allows the common resonator to be made large thereby improving
bass response. Undesirable acoustic coupling through the common resonator is
addressed by driving the earpiece speaker with a cancellation filtered version of the
10 loudspeaker drive signal when the loudspeaker is driven.